WHAT IS CLAIMED IS:

1. A method of prolonging the survival of a transplant allograft in a recipient, said method comprising administering to said recipient simultaneously or sequentially a therapeutically effective combination of a lymphocyte depleter, a deoxyspergualin compound and an mTOR inhibitor.

2. The method according to Claim 1, wherein said lymphocyte depleter is selected from the group consisting of an anti-thymocyte globulin, an anti-lymphocyte globulin, a T cell immunotoxin, and a monoclonal antibody preparation directed against a lymphocyte surface protein.

3. The method according to Claim 2, wherein said lymphocyte depleter comprises an anti-thymocyte globulin.

4. The method according to Claim 3, wherein said anti-thymocyte globulin comprises a rabbit polyclonal anti-thymocyte globulin.

5. The method according to Claim 2, wherein said lymphocyte depleter comprises a monoclonal antibody preparation directed against a lymphocyte surface protein, and wherein said lymphocyte surface protein comprises CD52.

6. The method according to Claim 1, wherein said deoxyspergualin compound is selected from the group consisting of 15-deoxyspergualin, LF15-0195, LF-08-0299, and methyldeoxyspergualin.

7. The method according to Claim 1, wherein said mTOR inhibitor comprises a rapamycin compound.

8. A method for inducing immune tolerance to an antigen in a recipient host, comprising the simultaneous or sequential administration of a lymphocyte depleter and a

deoxyspergualin compound to the host, in combination with the administration of an immunosuppressant taper.

9. The method according to Claim 8, wherein said immunosuppressant taper comprises the tapered administration of an mTOR inhibitor to said host.

10. The method according to Claim 9, wherein said mTOR inhibitor comprises a rapamycin compound.

11. The method according to Claim 8, wherein said lymphocyte depleter is selected from the group consisting of an anti-thymocyte globulin, an anti-lymphocyte globulin, a T cell immunotoxin, and an monoclonal antibody preparation directed against a lymphocyte surface protein.

12. The method according to Claim 11, wherein said lymphocyte depleter comprises an anti-thymocyte globulin.

13. The method according to Claim 12, wherein said anti-thymocyte globulin comprises a rabbit polyclonal anti-thymocyte globulin.

14. The method according to Claim 8, wherein said deoxyspergualin compound is selected from the group consisting of 15-deoxyspergualin, LF15-0195, LF-08-0299, and methyldeoxyspergualin.

15. The method according to Claim 8, wherein said antigen is a host antigen.

16. The method according to Claim 8, wherein said antigen is a donor antigen.

17. The method according to Claim 16, further comprising the administration to said host of donor hematopoietic cells to induce hematopoietic chimerism or microchimerism.

18. A method for treating GVHD in a recipient host, comprising the simultaneous or sequential administration of a lymphocyte depleter and a deoxyspergualin compound to the host, in combination with the tapered administration of an mTOR inhibitor.

19. A kit for use in the treatment of a transplant recipient, said kit comprising a lymphocyte depleter, a deoxyspergualin compound and an mTOR inhibitor.